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A new record of *Typha shuttleworthii* (Typhaceae) in Poland

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Abstract: The paper presents a new locality of *Typha shuttleworthii* W.D.J. Koch & Sond. in Poland. The species was found in wet roadside ditch in Kryg village near Gorlice (ATPOL grid square EG09). The distribution map of the species in Poland is provided.

Key words: *Typha shuttleworthii*, distribution, Carpathians

Introduction

Typha shuttleworthii W.D.J. Koch & Sond was recently recorded as a new to Poland (Kozłowska *et al.* 2012). Like the other three species representing the genus *Typha*, namely, *T. latifolia* L., *T. angustifolia* L., *T. laxmannii* Lepech, it is established in Poland (Mirek *et al.* 2002, Kozłowska *et al.* 2012).

Typha shuttleworthii is quite similar to *T. latifolia* and they can be easily misidentified. *T. shuttleworthii* has leaves 0.5-1.0(-1.5) cm wide, as long as stem with inflorescence or slightly longer while leaves of *T. latifolia* are 0.8-2.0 cm wide and much longer than stem with inflorescence. Male inflorescence of *T. shuttleworthii* is 4-5(-12) cm long and significantly shorter than female inflorescence. *T. latifolia* has male inflorescence (5-)10-20 cm long, equal or longer than female inflorescence, sometimes slightly shorter. *T. shuttleworthii* and *T. latifolia* differ slightly also in length of seeds and anthers (Kozlowska *et al*. 2011).

In Europe, species range extends from eastern France to Ukraine and western Russia (Leonova 1979, Cook 1980, Dubina *et al.* 1993, Felbaba-Klushina 2011, Kapitonova *et al.* 2012). In Asia, it has been noted in Turkey and Iran (Baytop 1984, Hamdi *et al.* 2009). *Typha shuttleworthii* is usually recorded at lower mountain elevations. In Poland, *T. shuttleworthii* has been found at several localities at elevations from 500 to 600 m in Bieszczady and Beskid Niski Mts by Kozłowska *et al*. (2011). Populations of *T. shuttleworthii* in Poland are located on the northernmost range limit of the species in Central Europe.

Typha shuttleworthii is a semi-aquatic plant occurring both in natural and anthropogenic habitats. It grows mainly in wet ditches, stream and river valleys, in the areas of stagnant or slowly flowing waters. In Europe *Typha shuttleworthii* has been noticed in plant communities belonging to the Phragmitetea class or the Molinietalia order (Kozłowska *et. al*. 2011).

New locality

During field investigations conducted in the Beskid Niski Mts (within the Carpathian range) in 2014 new locality of *Typha shuttleworthii* has been found near Kryg village near Gorlice (GPS coordinates: 49°39′19.8″N/21°16′31.0″E; EG09 ATPOL square 10 km x 10 km; Figs 1, 2). The collected specimens of *Typha shuttleworthii* are deposited in the Herbarium of Jagiellonian University in Kraków (KRA).

The population of *Typha shuttleworthii* consisted of about 30 specimens growing in roadside ditch about 500 meters SEE from Kryg village. Specimens of the taxon occurred there together with: *Juncus inflexus, Alnus glutinosa, Juncus articulatus, Lythrum salicaria, Valeriana officnalis, Alisma plantago-aquatica, Melilotus officinalis, Carex contigua*, and *Calamagrostis epigeios*.

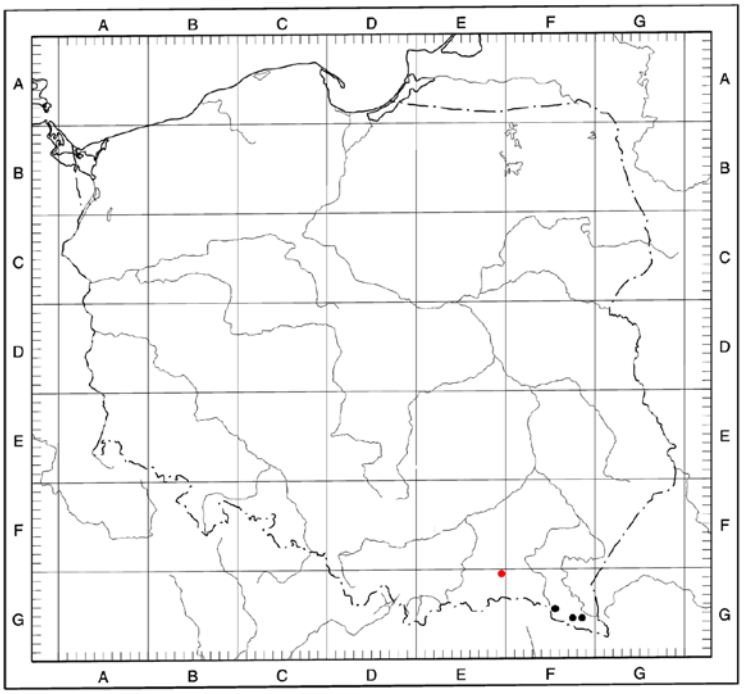

Fig 1: Distribution of *Typha shuttleworthii* in Poland; • – previously known locality, • – new record.

Fig 2: *Typha shuttleworthii* near the Kryg willage.

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